



**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA  
AND THE CALIFORNIA ENERGY COMMISSION**

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Order Instituting Rulemaking to Implement  
the Commission's Procurement Incentive  
Framework and to Examine the Integration of  
Greenhouse Gas Emissions Standards into  
Procurement Policies.

Rulemaking 06-04-009  
(Filed April 13, 2006)

Energy Commission Docket 07-OIIP-01

**COMMENTS OF PACIFICORP (U 901 E) ON TYPE AND  
POINT OF REGULATION ISSUES**

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Pursuant to the *Administrative Law Judges' Ruling Requesting Comments on Type and Point of Regulation Issues* dated November 9, 2007, and the *Administrative Law Judges' Ruling Granting Extension of Time* dated November 19, 2007, PacifiCorp respectfully submits these comments addressing issues related to the type and point of regulation to be used to reduce greenhouse gas ("GHG") emissions in the electricity sector. PacifiCorp appreciates the opportunity to provide further comments in this proceeding on these important issues.

**I. INTRODUCTION**

PacifiCorp is one of the West's leading utilities, serving more than 1.6 million customers in six western states (California, Idaho, Oregon, Utah, Washington, and Wyoming). PacifiCorp has more than 10,400 megawatts of generation capacity on a system-wide basis from coal, hydro, wind power, natural gas-fired combustion turbines, solar and geothermal. PacifiCorp also has ownership interests in thermal generation units located in three additional western states (Arizona, Colorado, and Montana). In California, PacifiCorp serves approximately 46,500 customers in Del Norte, Modoc, Shasta and Siskiyou counties.

No one should underestimate the challenge of de-carbonizing an economy that has relied on carbon-based fuels for two centuries. Technology development is the key to long-term, sustainable emissions reductions. At the national level, PacifiCorp and its parent, MidAmerican Energy Holdings Company, have advocated for a phased-in, technology and policy-driven national approach to reduce long-term global GHG emissions while minimizing the costs and risks to the economy.<sup>1</sup> Transitioning to a low-carbon economy cannot take place overnight, but there are measures that should be undertaken now. In the first phase, we suggest focusing on technology development and sector-specific reductions from existing technologies that may have incremental costs that are slowing deployment. In the electricity sector, for example, we propose six priorities:

1. Adoption of flexible renewable and clean technology portfolio goals.
2. More stringent energy efficiency mandates.
3. Policies to encourage efficiency improvements at existing facilities.
4. A ten-year, multi-billion dollar research and development program for emission reduction, funded equally by the private sector and the government.
5. Removing the legal and regulatory barriers to the development of low-emissions technologies such as carbon sequestration and new nuclear development.
6. Tax policies to support these programs, such as a long-term extension of the renewable energy tax credit and clean coal initiatives.

Beginning around 2020, as new baseload zero- and low-emissions technologies become available, we propose moving to the second phase of an emissions reduction program. PacifiCorp has suggested a hybrid system of phased-in emissions reductions based on carbon intensity targets, together with trading and safety valve price mechanisms. By using this

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<sup>1</sup> See, "Testimony of David L. Sokol, Chairman and CEO MidAmerican Energy Holdings Company for the Subcommittee on Energy and Air Quality, Committee on Energy and Commerce U.S. House of Representatives, March 20, 2007 (available at: <http://www.pacifiCorp.com/File/File73583.pdf>)

transitional glide path, the U.S. should be poised for dramatic reductions in the third phase, beginning around 2030. Given the breadth of the challenge, PacifiCorp supports a national regulatory solution.

If California moves forward with a cap-and-trade program regulating GHG emissions from the electricity sector, PacifiCorp respectfully requests that the Commission carefully consider the impact of its GHG rules on PacifiCorp and other small multi-jurisdictional utilities (collectively, “SMJUs”). The combination of utility-owned generating resources and resources providing contracted for power located throughout the western United States, coupled with load-serving responsibilities and multi-state cost structures, places SMJUs in the complicated position of having to equitably assign the costs of system energy, including emissions/allowances, to each state’s retail load. The Commission has recognized the unique implementation issues facing SMJUs, most notably within the Renewable Portfolio Standard Program (“RPS”), R.06-02-012. Unlike large California investor-owned utilities, PacifiCorp’s generating assets and power purchases are not used exclusively to serve California retail load and PacifiCorp does not rely significantly on unspecified power purchases.

## **II. DISCUSSION**

The Ruling requests responses to several specific questions related to the type and point of regulation to be used to reduce GHG emissions in the electricity sector, which PacifiCorp outlines below in the order in which they were presented. Importantly, PacifiCorp respectfully requests that the Commission not perceive the absence of comments by PacifiCorp on any specific issue or other matter as a conclusive indication of PacifiCorp’s lack of interest with respect thereto. PacifiCorp acknowledges the ongoing nature of this proceeding and reserves the right to present additional comments at a future time, as necessary.

**Question No. 1:       What do you view as the incremental benefits of a market-based system for GHG compliance, in the current California context?**

It is difficult to assess potential incremental benefits of a market-based system

without additional details on the scope, coverage, reduction levels, timing, and other aspects of a market-based system. In general, the most significant benefit is expected to be a lower cost of compliance if, in fact, the market acts rationally and is not subject to manipulation. While one of the most successful environmental policies is the sulfur dioxide (“SO<sub>2</sub>”) cap-and-trade system authorized by the federal Clean Air Act Amendments of 1990, caution must be exercised in extending the reach of its success too broadly. The Acid Rain Trading program capped emissions of SO<sub>2</sub> from power plants and has achieved drastic reductions in pollution at a fraction of the estimated costs of traditional regulation—however, pollution control equipment was available to control SO<sub>2</sub>; such is not the case with GHG emissions. Regardless of the type of regulation, transformation to a low-carbon economy will require significant investment in new and innovative technologies.

Similar to the Acid Rain Program, a cap on GHG emissions could send an economy-wide signal favoring reductions; emissions trading would ensure that reductions are achieved at the lowest cost possible, provided that there are cost-effective ways to reduce emissions and the trading market is liquid. Further reductions could be phased in over time as new technologies come online and capital stock turns over.

As far as other important incremental benefits, the achievement of required emission reductions can be accelerated when emission reduction requirements are phased-in and firms are able to bank emissions reduction credits. Also, the initial allocation of allowances in cap-and-trade programs has shown that equity and political concerns can be addressed without impairing the cost savings from trading or the environmental performance of these programs. However, emissions trading programs must be designed properly in order to realize their potential cost-reduction and environmental compliance goals. As with any emissions control program, poor design is likely to lead to disappointing results.

**Question No. 2:**      **Can a market-based system provide additional emissions reductions beyond existing policies and/or programs? If so, at what level? How much of such additional emission reductions could be achieved through expansion of existing policies and/or programs?**

A market-based system will only provide additional emissions reductions beyond existing policies and/or programs if there are sufficient and affordable alternatives to carbon-based electricity supplies available in amounts needed to reduce a specified quantity of GHG emissions. It is difficult to determine the potential emission reductions that could be achieved through expansion of existing policies and/or programs without consideration of practical implementation and cost. While it is possible to, for example, expand the RPS to require that 100% of the electricity consumed in California be supplied by renewable resources—however, it is not practical to expand the RPS to do so. Electricity consumers expect uninterrupted supplies of electricity at an acceptable cost. Conversely, one must question the value of an RPS at all if there is a GHG reduction requirement and few options to achieve such a reduction. Will a new renewable generation project count toward an RPS or a GHG reduction program, neither, or both? Caution should be exercised when considering how existing policies and programs influence the viability of a GHG reduction program.

An additional consideration regarding the level of additional emissions reductions beyond existing policies and/or programs is that the ability to achieve those reductions may be most accurately assessed on a company- or sector-specific basis, considering the peculiarities of specific business operations. A manufacturing entity that is a heavy electricity user may be able to reduce its GHG emissions by purchasing more efficient equipment or implementing process improvements; a natural gas-fired combined cycle electricity generator may have few options to reduce its GHG emissions, beyond reducing its output. A comprehensive cap-and-trade system puts a price on carbon throughout the economy, and gives every regulated entity the incentive to reduce its greenhouse gas emissions to the maximum extent possible, which in some cases would likely be below their individual caps. In this example, additional emission reductions could be achieved. However, broadly speaking, there more than likely would be companies with excess emissions who would buy the surplus allowances. In this scenario, additional emissions reductions would not necessarily be achieved, but rather achieved earlier and more cost-effectively than they might otherwise have occurred under a traditional command and control

policies and/or programs.

While the expansion of existing policies and/or programs may similarly achieve emission reductions earlier, doing so may not be accomplishing them in the most cost-effective manner. Federal and state mandates relating to renewable and alternative energy development, vehicle fleet requirements, energy efficiency and demand-side management have traditionally been developed in isolation, without consideration of GHG impacts, and without consideration of the cost of alternatives. These mandates fail to capture useful data on climate impacts and/or benefits and have the potential to result in unintended consequences. Furthermore, overly narrow requirements imposed by state programs, such as the requirement that a renewable resource be located in the regulating state, discourage cost effective ways to reduce climate impacts.

For example, PacifiCorp's multiple programs for clean and alternative energy development have been largely designed in isolation from one another, with the intent of stimulating innovation or improving environmental performance in each technology sub-category. Energy efficiency and demand-side management programs have individual budgets and targets. RPS programs stimulate particular technologies up to a certain percentage of a particular state's electricity retail sales; solar photovoltaic programs aim to achieve specific capacity installation targets; heat rate improvement projects and higher efficiency generation technologies focus on fuel savings. Other opportunities in low- or zero-carbon energy development — such as waste heat recovery and methane capture — are not fully developed or recognized under existing RPS programs. While these are important programs individually, they do not include all technologies that can contribute to carbon emissions mitigation.

In lieu of expanding existing policies and/or programs, California should adopt a broad climate policy that allows a utility to pursue a portfolio strategy with carbon-equivalent savings as the unifying principle. All actions that result in such savings would contribute to carbon emissions reduction goals, thus providing an incentive for a utility and its customers to prioritize ratepayer investments based upon comparable cost-effectiveness, as well as undertake what are now generally unrecognized beneficial carbon-reducing acts. For example, California

should consider modifying the RPS program and allow utilities to net out retail megawatt-hours generated by zero-carbon emitting generation, such as nuclear, hydro and fossil equipped with carbon capture and sequestration.<sup>2</sup> A strategy with carbon-equivalent savings as the unifying principle is one already pursued by consumer-owned utilities, but would need to be supported by the Commission for investor-owned utilities and potentially replace and/or unify all existing clean and alternative energy programs and mandates. PacifiCorp observes that Commission staff appears to have arrived at a similar conclusion. Within staff's greenhouse gas emissions reduction measures workpaper, the following comment was made:

It bears mentioning that cost-effectiveness as defined under the current Public Utilities Commission regulatory framework refers to how a given measure compares to a calculated avoided cost for a utility. Under a regulatory framework set by an overarching limit on GHG emissions, cost-effectiveness of a given measure would instead be defined by how it compares to an alternative means of reducing emissions to meet one's obligation. *Greenhouse Gas Emissions Reduction Measures For the Electricity and Natural Gas Sectors Under Consideration as Part of R.06-04-009* at 6, n. 10.

PacifiCorp recommends that any market-based system should utilize carbon-equivalent savings as the unifying principle and provide additional (or earlier) *cost-effective* emissions reductions beyond (or be implemented in lieu of) existing policies and/or programs. Achieving additional (or earlier) cost-effective emissions reductions may be possible if they can be properly valued.

**Question No. 3:**      **Do you agree with the set of objectives to be considered in evaluating design options? Are there other objectives or principles that you wish to see included? If so, please include your recommendations and reasoning. Finally, please rank the objectives above, and any additional factors you propose, in order of importance.**

PacifiCorp has ranked each of the objectives as follows:

- (1)      Cost minimization: Is the approach likely to minimize the total cost to end users of achieving a given GHG reduction target?**

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<sup>2</sup> For fossil-fueled units the megawatt-hours would be pro-rated based upon the actual emissions sequestered versus total emissions generated.



Unlike most other California investor-owned utilities, PacifiCorp is a vertically-integrated utility owning approximately 80 percent of its generation portfolio, most of which is located outside the state. PacifiCorp's California customer base is limited and includes a significant proportion of low-income customers. Further, PacifiCorp's service territory lacks relatively large industrial customers. Collectively, these factors mean that PacifiCorp's residential customers will likely bear a disproportionate financial burden of achieving a given GHG reduction target compared to the customers of other California utilities who have already divested themselves of fossil generation. Those deregulated utilities have had, for several years, the ability to contract away any potential stranded cost risk, while also placing new construction risk squarely on independent generators competing for their business. PacifiCorp considers cost minimization a critical objective and respectfully requests that the Commission carefully consider the impacts of GHG emissions allowances mechanisms on customers served by SMJUs.

**(2) Legal risk: Is the approach at greater relative risk of being delayed or overturned in court?**

Earlier this year, PacifiCorp submitted public comments<sup>3</sup> on the Market Advisory Committee's final recommendations for designing a greenhouse gas cap-and-trade system for California. Within those comments, PacifiCorp strongly encouraged the Committee or the California Air Resource Board to subject the plan it ultimately proposes to an objective, independent analysis by a reputable third party, external to the overseeing and implementing administrative agency, for Constitutional review. PacifiCorp observed that it would frustrate every purpose for a cap-and-trade system for it to be formulated with so much effort, but delayed or ultimately overturned by a Federal lawsuit. Legal risk is the most significant initial objective to consider when evaluating different types and points of regulation.

One of the strongest appeals of the load-based approach is its perceived ability to withstand legal challenges. It is generally accepted that California institutions cannot explicitly

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<sup>3</sup> See, [http://www.climatechange.ca.gov/events/2007-06-12\\_mac\\_meeting/public\\_comments/PacifiCorp%20Comments%20on%20MAC%20Recommendations.pdf](http://www.climatechange.ca.gov/events/2007-06-12_mac_meeting/public_comments/PacifiCorp%20Comments%20on%20MAC%20Recommendations.pdf)

regulate the production of electricity in other states. However, regulating the *purchases* of electricity would place the point of regulation upon firms operating strictly within California. As with the RPS, this would be acceptable within the confines of the constitution's commerce clause as long as the regulation does not explicitly treat purchases from imports differently than those from production within the state.

**(3) (a new objective) Technological feasibility: Is the approach taking into account technological feasibility?**

PacifiCorp approaches key challenges through a multi-stage process whose primary components are – assess, plan, execute, measure and adjust. Applying these same tools to the challenge of dealing with carbon emissions and climate change, PacifiCorp recommends that California implement a multi-phased, economy-wide approach that matches emissions reduction goals to reasonable expectations of technology development.

PacifiCorp's recommendation is based primarily on concepts developed by the Electric Power Research Institute ("EPRI") and described within their recently released study "The Power to Reduce CO<sub>2</sub> Emissions: The Full Portfolio." In that document, EPRI describes a technology path for the electricity sector to return to 1990 emissions levels by 2030. This will require the long-term commitment of billions of dollars in energy research, development and deployment in every aspect of electric generation, transmission and consumption. EPRI establishes specific technology deployment targets in seven areas: efficiency, renewables, nuclear generation, advanced coal generation, carbon capture and storage ("CCS"), plug-in hybrid electric vehicles ("PHEV") and distributed energy resources. While one could argue that carbon emission reductions from some of these targets could be slightly higher or somewhat lower, the overall picture is clear – getting from the present to a low carbon future can be accomplished, but only with substantial and consistent investment, the right policy choices and a realistic timeline. The most encouraging aspect of the study is that, as we move toward 2030, emissions levels can begin falling fairly dramatically and the potential of some of the more dire predictions of climate change can be minimized.

The emphasis here is that there will be a hierarchy of value in the dollars spent attempting to address climate change. It is critical to address technology research and development that will assist in long term solutions along with measures that offer immediate carbon benefits from investments in energy efficiency, renewable energy, and increasing the efficiency of existing fossil generation.

**(4) Accuracy: Does the approach support accuracy in reporting and, therefore, ensure that reported emission reductions are real?**

A rigorous and consistent monitoring and reporting of GHG emissions is important for two key reasons: 1) to ensure environmental integrity and credibility of the system (i.e., allowing the inclusion of emissions that are difficult to measure or the use of poor emissions determination methods could lead to a violation of the trading system cap), and 2) to provide a sense of fairness among participants in the trading program (i.e., if some firms were under-estimating their emissions due to the use of poor methods, failure to account for some activities, or other reasons, then they would not only gain advantage over their competitors but also be perceived as cheating. This too would undermine the credibility of the program).

**(5) Administrative Simplicity: Does the approach promote greater simplicity for reporting entities, verifiers, and state agency staff? How easy will the program design be to administer?**

The proposed approach should be administratively simple and facilitate regional and international linkages. This is a critical objective because administrative simplicity encourages robust trading and ultimately reduces the overall costs of the program.

**(6) Goal attainment: Does the approach being considered have any particular advantages in terms of meeting overall emission reduction goals? For example, does the approach have any advantages to promoting energy efficiency, combined heat and power, or renewable energy?**

Goal attainment is a critical objective; however, PacifiCorp would observe that the original targets established within Assembly Bill 32 were economy-wide goals and the

appropriate share of the economy-wide cap to be assigned to the electricity sector should reflect an amount and timetable that is linked to technological feasibility.

As far as advantages to promoting energy efficiency, combined heat and power, or renewable energy, the approach ought to not distinguish between the different existing policies and/or programs, but rather engender the pursuit of lowest cost opportunities for emissions reductions. Again, PacifiCorp strongly recommends a market-based system, with carbon-equivalent savings as the unifying principle that provides the most effective means of achieving *cost-effective* emissions reductions beyond or in lieu of existing policies and/or programs.

**(7) Environmental Integrity: Does the approach mitigate or allow contract shuffling and the leakage of emissions occurring outside of California as a result of efforts to reduce emissions in California?**

This objective is critical, but only to the extent that California's program exists in isolation. As has been discussed previously, the risk of contract shuffling and leakage diminishes greatly under either a regional program, as envisioned by the Western Climate Initiative, or a national program.

**(8) Compatibility with wholesale markets and the Market Redesign and Technology Upgrade: What are the implications of the approach on efficient functioning of wholesale markets generally and the California Independent System Operator day-ahead and real-time markets?**

PacifiCorp declines to comment on this question at this time, but reserves the right to present additional comments at a future time, as necessary.

**(9) Expandability: Would the approach integrate easily into a broader regional or national program? A related consideration is the suitability of the approach as a model for a national or regional program.**

The proposed approach should facilitate regional and international linkages. A larger market encourages robust trading which ultimately reduces the overall costs of the

program.

**Question No. 4:**      **With a load-based cap-and-trade system, should exports from in-state generation sources be included and accounted for under the cap? Why or why not? If so, how? For example, exports could be captured in a cap-and-trade system by regulating in-state sources that export, or by counting the emissions associated with exported power, without any compliance obligation on the exporter. There may be other options as well.**

Within a load-based cap-and-trade system, exports from in-state generation sources should be included and accounted for as part of a mandatory reporting rule, but not counted against the cap. Emissions liability associated with exported energy are ultimately the responsibility of the end user who pays for the energy. To be consistent with the imputation of carbon liability for emissions associated with electricity produced out of state, but consumed within California, likewise the converse should be true. If California chooses to regulate the emissions associated with the production of electricity exported out of the state, it may do so, treating it akin to an industrial emitter, but not include those emissions within the load-based cap. A load-based cap is meant to reflect emissions associated within California's electricity consumption. To do otherwise would be to establish a "hybrid" regulatory system; a hybrid system includes elements of both a load-based and source-based system.

**Question No. 5:**      **How extensive do you view the threat of contract shuffling under a load-based program, given the accessibility of clean resources within the western interconnect? What mechanisms do you propose to combat this possibility? On what basis do you support your position?**

The long economic lifetime and development lead-time of many electricity generation investments requires that utility resource planning consider potential costs and risks over a lengthy time horizon. Although enactment of state GHG regulations are increasingly likely (if not already in place), and Congressional consideration of federal GHG legislation is occurring, uncertainty surrounding the exact nature and timing of those regulations can pose substantial financial risks for utility ratepayers and shareholders. Consequently, many western utilities (sometimes required by state regulatory rules) are beginning to actively assess carbon

regulatory risk within their resource planning, and are evaluating options for mitigating that risk.

The fact is that, in the absence of federal legislation, states are increasingly taking action on their own to limit greenhouse gas emissions.<sup>4</sup> As the Commission is aware, in the West, California, Oregon, Washington, New Mexico, Arizona, and Utah have all established statewide greenhouse gas emission reduction goals, and have joined with the Canadian provinces of British Columbia and Manitoba to develop a regional a cap-and-trade system or other market-based mechanisms to reduce their combined emissions to 15% below 2005 levels by 2020.<sup>5</sup> Of these Western states, California, Oregon, and Washington have passed legislation formally codifying their emission reduction goals, although only California's law creates regulatory authority to enforce those goals.<sup>6</sup>

California and Washington have also both established emission performance standards for electric power generation that effectively prohibit the states' utilities from building or signing new long-term contracts with coal-fired power plants lacking carbon sequestration.<sup>7</sup> Oregon and Washington require that new power plants mitigate a portion of their projected carbon emissions.<sup>8</sup> Although the focus of this study is on the West, states in other regions of the

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<sup>4</sup> For summaries of state and regional carbon policies throughout the U.S., see Johnson et al. (2006), Pew Center (2006), and Pew Center (2007).

<sup>5</sup> See, <http://www.westernclimateinitiative.org/ewebeditpro/items/O104F13006.pdf>

<sup>6</sup> California's Assembly Bill (AB) 32, enacted in 2006, caps statewide emissions at 1990 levels in 2020, and directs the California Air Resources Board to develop regulations to achieve this goal. Washington's Engrossed Substitute Senate Bill (ESSB) 6001, enacted in 2007, also caps statewide emissions at 1990 levels in 2020, and ratchets down the cap to 25% below 1990 levels in 2035, and, in 2050, to the lesser of 50% below 1990 levels and 70% below projected emissions in 2050. Oregon House Bill 3543, enacted in 2007, caps statewide emissions at 10% below 1990 levels in 2020 and at 75% below 1990 levels in 2050.

<sup>7</sup> California's Senate Bill (SB) 1368, enacted in 2006, prohibits the state's utilities from taking new ownership interest in, or signing new contracts with a term of five or more years for, baseload generation with a carbon dioxide emission rate exceeding that of a combined-cycle natural gas unit. Washington's ESSB 6001, adopted in 2007, includes essentially the same set of provisions.

<sup>8</sup> Pursuant to Oregon House Bill 3283, enacted in 1997, the Oregon Energy Facility Siting Council requires that new baseload gas-fired generation and new non-baseload generation mitigate all projection CO<sub>2</sub> emissions in excess of what would be produced by a plant with an emission rate of 675 lbs/MWh (approximately 15-20% below the emission rate of the most efficient CCGT) operating 8760 hours per year for 30 years. Applicants for site certificates can mitigate their excess CO<sub>2</sub> emissions through cogeneration, by implementing mitigation projects directly or through a third party, or by providing an up-front payment (currently set at \$1.27 per short ton of CO<sub>2</sub>) to

country are also developing significant policies and regulations to reduce greenhouse gas emissions.

Finally, of the eleven western states, only three (Idaho, Wyoming, and Utah) have not adopted a state RPS. Of the remaining eight, including California, RPS targets are only expected to get become more stringent over the next two decades. The possibility also exists that a federal RPS may be adopted within the next five years.

As a consequence, PacifiCorp does not consider contract shuffling under a load-based program to be a significant threat. Regionally, with the creation of the Western Climate Initiative and increased Congressional activity, western utilities are weighing the financial risks of owning or overly relying on electricity generated from higher carbon fuels. That, coupled with aggressive RPS requirements within most of the western states, makes it unlikely that significant amounts of contract shuffling would occur or allowed within a subsequent prudence review. Until a utility's GHG regulatory landscape becomes clearer, and with state RPS requirements only becoming more challenging, it is unlikely any western utility or their regulators will encourage contract shuffling which could leave their ratepayers at higher financial risk over the long term or the utility at risk of not receiving cost recovery.

In the case of PacifiCorp, its utility-owned and contracted for sources of electricity are considered "system" resources; shared among the six states in which PacifiCorp offers retail electricity service. With California and Washington passing legislation enacting greenhouse gas emissions performance standards, a new coal resource could not be built by the company and designated as a system resource. Instead, if such a plant were built, its costs would be assigned on a situs basis to the State(s) willing to approve cost recovery. Similarly, in order for an existing system resource to be removed or retired from the shared portfolio, presumably to reduce the emissions associated with system power, doing so would likewise require the review and consent of the six state utility commissions. If in the future the states PacifiCorp serves agree

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the Climate Trust, a designated third-party provider of mitigation projects. Washington's House Bill 3141, enacted in 2004, is similar to the Oregon law, except that it is applicable to all baseload plants regardless of fuel source, and requires all projects to mitigate a flat 20% of projected CO<sub>2</sub> emissions. Among the set of mitigation options, applicants can pay a mitigation fee of \$1.60 per metric ton CO<sub>2</sub>.

to changes proposed by PacifiCorp to its portfolio of existing system resources, PacifiCorp does not believe such changes can be construed as contract shuffling.

**Question No. 6: Which of these systems best accounts for all imports? What are the advantages and disadvantages of each potential tracking system in terms of accuracy, cost of development and administration of tracking systems, costs of administration to the parties, and overall costs to ratepayers? Are there alternative tracking approaches that you would recommend, and for what reasons?**

Unlike most other California utilities, PacifiCorp still owns the majority of its generation and contracts for power from primarily known sources. PacifiCorp currently uses contracts and settlements data to determine emission imputed on purchased power, but ultimately, supports the development of a tracking system to facilitate matching sources to loads, with unclaimed sources pooled and assigned to all retail providers for any electricity that cannot be accounted for on a specified basis. Tracking systems for multi-jurisdictional utilities is complicated by the need to accommodate inter-jurisdictional cost allocation methodologies (accompanied by the allocation of carbon liability) employed by multi-jurisdictional utilities who serve different states.

**Question No. 7: If a load-based approach is pursued, would the potential benefits of a full TEAC system be great enough to warrant the start-up and administrative costs?**

It is unclear whether a TEAC system would accommodate inter-jurisdictional cost allocation methodologies (and similarly the allocation of carbon liability) employed by multi-jurisdictional utilities who serve different states.

**Question No. 8: Do you view a source-based approach as compliant with Assembly Bill (AB) 32? Please support your answer. The threat of leakage can be viewed over two time horizons: short-term and long-term.**

AB 32 specifically states that regulators must consider the GHG impact of electricity imports. Accordingly, some other regulatory mechanism, such as a carbon tax (in lieu of a load-based cap), would have to be deployed to deal with imports that would operate in



parallel to a source-based cap-and trade system. Over the long term, the threat of leakage should diminish as either a regional or national program emerges. To accommodate multiple jurisdictions, it is more likely than not it will follow the more traditional source-based cap-and-trade system. All national cap-and-trade proposals to date rely largely on a source-based cap-and-trade system.

**Question No. 9:**      **In light of the relatively high capacity factors of carbon-intensive facilities outside the state, how extensive do you expect the short-term threat of substituting higher-carbon imports for in-state generation to be? Might this possibility be dealt with through specific program design (e.g., allocations, limiting conditions, etc.)?**

Under a source-based cap-and-trade system, some other regulatory mechanism, such as a carbon tax (in lieu of a load-based cap), could be deployed to deal with imports that would operate in parallel. Also, the newly promulgated GHG emissions performance standards effectively regulate new long term financial commitments for high capacity factor facilities located outside the state.

**Question No. 10:**      **Given existing procurement oversight and the prospect for a regional or federal GHG program in the foreseeable future, how extensive do you expect the threat to be of a longer-term shift of production to regions beyond the reach of a California source-based cap-and-trade regime?**

PacifiCorp anticipates a longer term shift of renewables production to regions outside of California as regional transmission projects move forward. Also, please see responses to questions 8 and 9.

**Question No. 11:**      **If emissions associated with imported power are excluded from a cap-and-trade program, what policies beyond the existing suite of program including energy efficiency, California Solar Initiative, RPS, and Emission Performance Standard (EPS) do you recommend that California employ to achieve the necessary reductions from the electricity sector?**

Please see responses to questions 2 and 9. Possibilities include those identified as potential sources of additional reductions articulated within the California Public Utilities

Commission staff workpaper “Greenhouse Gas Emissions Reduction Measures For the Electricity and Natural Gas Sectors Under Consideration as Part of R.06-04-009” beginning at page 6 through 11, specifically:

- \* Additional energy efficiency (beyond the currently targeted levels)
- \* Increased renewables (beyond currently targeted levels)
- \* Increased Combined Heat and Power (CHP)
- \* Environmental Dispatch
- \* Repowering and New Build with Low Carbon Technologies
- \* Increased conventional non-carbon resources (i.e., hydro, nuclear)

PacifiCorp, however, would place more emphasis on achieving broad commercial deployment of CCS technology as a critical component of achieving long-term reductions in greenhouse gas emissions for all types of fossil fuels (i.e., coal, natural gas, and biomass). CCS refers to the separation (capture) of carbon dioxide from industrial and power generation sources, and transport to storage locations (via pipelines) for long term storage within deep geological formations (reservoirs).

**Question No. 13:      What sources would a source-based system cover? Could it cover California utility-owned facilities located outside of California?**

To the extent a source-based system did cover California utility-owned facilities located outside of California, in the case of multi-jurisdictional utilities, the reach of the regulatory authority would need to be limited to only California’s share of the facility as defined by the appropriate allocation methodology.

**Question No. 14:      Would a strengthened EPS assist in reducing emissions due to California imports? What recommended changes would you make to the EPS?**

A strengthened EPS could assist in reducing emissions due to California imports

if applied to additional types of financial commitments. However, a strengthened EPS may also have the unintended consequence of reducing available supply of electricity in California, either from in-state or out-of-state generation if not even state-of-the-art natural gas-fired generation could meet the more stringent standard. PacifiCorp does not currently have a recommended change.

**Question No. 15: Please comment on the “First Seller Design Description” paper, which is Attachment A to this ruling. Does the paper accurately describe the deliverer/first seller program? If not, describe your concerns and include an accurate description from your perspective.**

The paper accurately reflects the circumstance PacifiCorp would find itself in under a deliverer/first seller program (i.e., essentially regulated akin to a load-based program) and would be responsible for reporting the emissions for all of its sources of electricity. Unlike most other California utilities, PacifiCorp still owns the majority of its generation and contracts for power from primarily known sources. However, the risk of contract shuffling discussed within the paper is likely to be overstated for the reasons articulated within the response to question 5. PacifiCorp also disagrees with the paper and believes California could allocate GHG emissions allowances freely to existing emitters based upon historic emissions, however, PacifiCorp also acknowledges that auctioning the allowances may be reasonable provided the revenues are returned to load-serving entities in order to avoid customer rate shock.

**Question No. 16: Please describe in detail your view of how a point of regulation would be the electricity generators for in-state generation and the retail providers for imported power would work.**

Even if California were to adopt a hybrid type of regulation, SMJUs, such as PacifiCorp, would still need to be regulated according to the load-based approach. The reason being, unlike most other California investor-owned utilities, PacifiCorp is a vertically-integrated utility owning approximately 80 percent of its generation portfolio, most of which is located outside the state and none of its in-state generation coming from a fossil-fueled facility. This being the case, we would defer to other parties to more precisely describe how a hybrid type of

regulation would work.

**Question No. 17: Do you support such an approach? Why or why not?**

Please see response to question 16.

**Question No. 19: If retail providers are responsible for internalizing the cost of carbon for imported power, all power generated in-state may need to be tracked to load to avoid double regulation of in-state power. Do you agree?**

Please see response to question 16.

**Question No. 23a: How could emission reduction obligations be met if there is no cap-and-trade system for the electricity sector?**

Similar to the current energy efficiency and RPS programs, the Commission could establish utility-specific emissions reduction targets. However, PacifiCorp would still recommend that such a regulatory approach be designed with carbon-equivalent savings as the unifying principle. Although opportunities that are derived from outside of the utilities operations could not be pursued via trading (with the possible exception of carbon offsets), such a unifying principle would allow the utility to prioritize its own opportunities based upon cost effectiveness.

**Question No. 23b: How would increased programmatic goals impact rates?**

Please see answer to question 23a. Also, the impact on customer's rates would depend on the assigned cap, the accompanying schedule and rate of decline, as well as a utility's emission reduction opportunity supply curves.

**Question No. 26: What flexible compliance mechanisms could be integrated into a non-market based GHG emission reduction approach?**

Equivalent emissions reductions or "carbon offsets" created outside of a utility's operations is a flexible compliance mechanism that could be integrated into a non-market based GHG emission reduction approach. Similarly, valuing of early action, in advance of state or federal carbon regulation, would accelerate early carbon emissions reduction investments. A

perverse result of the current uncertainty over carbon regulation is a delay in the development of cutting edge initiatives that could be overcome with timely and targeted policy intervention. California should consider creating a banking mechanism, with clear underlying property rights attributable to the entity initiating early action, to allow value to be realized from carbon reductions resulting from that early action.

A uniform structure for quantifying carbon equivalent, establishing how it will be credited, certified and tracked, as well as defining a process to bank the credits, should be established to appropriately address the risk and reward of emission reductions. This action would supplement the numerous issues related to designing the ultimate carbon control regime. By clearly defining a process by which a risk-taking entity can receive future rewards under a carbon-control regime (while the environment benefits from emissions reductions that occur much earlier), California can liberate early action as well as provide a basis for liquidity in any future credit markets that may emerge. A stable set of early incentives for carbon-saving investment needs to be established in the United States. The combination of a banking system with clear underlying property rights will enable private entities to act on the basis of their own assessment of the future value of carbon credits.

**Question No. 27: If a market-based cap-and-trade system is not implemented for the electricity sector in 2012, how would you recommend addressing early actions that entities may have undertaken in anticipation of a market?**

Please see response to question 26.

**Question No. 29a: Submit your comprehensive proposal for the approach California should utilize regarding the point of regulation and whether California should implement a cap-and-trade program at this time for the electricity sector. If you recommend that another approach be considered besides those detailed above, propose it here. If you recommend one of the above options, give as detailed a discussion as possible of how the approach would work.**

The combination of utility-owned generating resources and resources providing contracted for power located throughout the western United States, coupled with load-serving

responsibilities and multi-state cost structures, puts SMJUs in the complicated position of having to equitably assign the costs of system energy, including emissions, to each state's retail load. Alternative rules should be developed for SMJUs to address their complicated position in the western energy market. Given these unique circumstances and peculiarities of SMJUs, it is not disputed that under either the deliverer/first seller or the hybrid approach, PacifiCorp should be regulated according to the load-based approach.

**Question 29b.**      **Address and compare how each of the alternatives identified in the above questions, and the proposal you submit in response to the preceding question, would perform relative to each of the principles or objectives listed above and any other principles or objectives you propose. For each alternative, address important tradeoffs among the principles.**

Please see response to question 29a. The Commission has routinely stated it prefers a "simpler is better" approach. It has opted for simplicity where it can, unless there were reasons or details that require complexity. The load-based approach is preferable. The point of regulation would be placed upon California electricity load-serving entities. Within California, there are currently five investor-owned utilities, approximately twenty-six municipal electric utilities, three rural cooperatives, approximately seventeen federal and state agencies and irrigation districts which could be considered electric utilities<sup>9</sup> and approximately seventeen registered electric service providers.<sup>10</sup> That equates to less than seventy California entities that could be regulated under a load-based approach. A California load-based approach would be an adequate means for regulating GHG emissions until such time it is replaced either by a regional or national source-based program.

### **III. CONCLUSION**

PacifiCorp appreciates the opportunity to provide comments addressing issues

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<sup>9</sup> See, California Energy Commission website (<http://www.energy.ca.gov/electricity/utilities.html>)

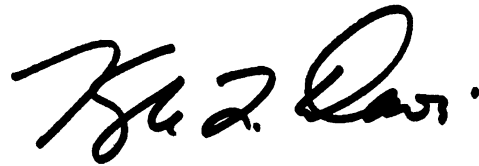
<sup>10</sup> See, California Public Utilities Commission website ([http://www.cpuc.ca.gov/published/ESP\\_Lists/esp\\_udc.htm](http://www.cpuc.ca.gov/published/ESP_Lists/esp_udc.htm))

related to the type and point of regulation to be used to reduce GHG emissions in the electricity sector. For all the foregoing reasons, PacifiCorp recommends that the Joint Staff pursue a load-based approach and in the alternative, consider developing a load-based regulation exclusively for SMJUs and their unique circumstances.

Dated: December 3, 2007

Respectfully submitted,

By

A handwritten signature in black ink, appearing to read "Kyle L. Davis". The signature is fluid and cursive, with a large initial "K" and a distinct "L" and "D".

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**CERTIFICATE OF SERVICE**

I hereby certify that on this 3rd day of December, 2007, I caused to be served, a true and correct copy of the foregoing

**COMMENTS OF PACIFICORP (U-901) ON TYPE  
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